

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Inventor:	Ryutaro YAMANAKA et al.	Art Unit 2618
Appln. No.:	10/530,208	Exr. J. Young
Filed:	April 4, 2005	Conf. No. 9601
For:	COMMUNICATION APPARATUS AND COMMUNICATION APPARATUS RECONFIGURATION METHOD	

RESPONSE UNDER 37 CFR § 1.116

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In response to the Final Rejection dated July 26, 2007, the Applicants respectfully request reconsideration and allowance of this application in light of the following remarks.

Claims 1-12 and 17 stand rejected, under 35 USC §103(a), as being unpatentable over Dapper (US 6,487,405) in view of Neumann et al. (US 2002/0141441). Claims 13 and 14 stand rejected, under 35 USC §103(a), as being unpatentable over Dapper in view of Neumann and Buhrmann et al. (US 5,854,984). Claims 15 and 16 stand rejected, under 35 USC §103(a), as being unpatentable over Dapper in view of Neumann, Buhrmann, and Silver et al. (US 5,828,949). The Applicants respectfully traverse these rejections based on the points set forth below.

Claim 1 defines a communication apparatus having: (1) a first baseband signal processor that executes baseband signal processing common to a plurality of radio communication systems and (2) a reconfiguring section that reconfigures only a second baseband signal processor, without reconfiguring the first baseband signal processor, upon switching among radio communication systems.

The Final Rejection does not cite Dapper for disclosing these features and seemingly acknowledges that Dapper does not disclose them (see Final Rejection section 2, second and third paragraphs). To overcome this deficiency in Dapper, the Final Rejection proposes that Neumann discloses the above-noted features (see paragraph bridging pages 4 and 5).

However, the Applicants note that Neumann discloses, in Figs. 5A-8B, a GSM master processor 202 that executes baseband processing for GSM communication and a TDMA processor 204 that executes baseband processing for TDMA communication (see Neumann abstract, lines 1-4). More simply, Neumann discloses two processors that each perform baseband processing independently for a single type of communication signal; one processor performs this processing only for GSM signals and the other processor performs this processing only for TDMA signals.

Therefore, Neumann's system has two digital LPFs 532 and 626, for example. This is wasteful and increases the circuit scale of the system.

By contrast, the Applicants' claimed communication apparatus provides an advantage of not requiring separate LPFs for its two baseband processors; one digital LPF is sufficient and may be used for both GSM communication and TDMA communication.

Moreover, when the filter factors of the claimed invention are the same, it is not necessary to reconfigure a digital LPF upon switching of radio communication systems. On the other hand, when the filter factors are different, it is only necessary to reset a filter factor upon switching of radio communication systems. That is, correlators, as exemplified in Applicants' illustrative, non-limiting Fig. 9, may be shared by the claimed invention and configured in accordance with reconfiguration control information identifying the type of modulation to be used.

Furthermore, as described by Neumann on page 3, paragraph 0037, the TDMA processor enters a shut down or standby mode during an active GSM connection. Thus, Neumann's system includes a complete TDMA processor that is hardly used. This is very inefficient.

The Applicants' claimed invention has a first baseband signal processor that executes baseband signal processing common among a plurality of radio communication systems and a second baseband signal processor that executes baseband signal processing that is different among the plurality of radio communication systems. Only the second baseband signal processor is reconfigured based on programming data of a new radio communication system upon switching of radio communication systems. The Applicants' claimed subject matter provides an advantage of assisting in reducing the circuit configuration and unused circuits.

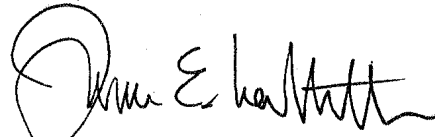
Accordingly, the Applicants respectfully submit that Dapper and Neumann, considered individually or in combination, do not render obvious the subject matter defined by claim 1.

Independent claim 17 similarly recites the above-mentioned features distinguishing apparatus claim 1 from the applied references, but with respect to a method. Therefore, it is submitted that the rejections applied to claims 13-16 are overcome, and allowance of claims 1 and 17 and all claims dependent therefrom is deemed to be warranted.

In view of the above, it is submitted that this application is in condition for allowance and a notice to that effect is respectfully solicited.

If any issues remain which may best be resolved through a telephone communication, the Examiner is requested to telephone the undersigned at the local Washington, D.C. telephone number listed below.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "James E. Ledbetter", with a large, stylized initial "J" and a cursive "E".

James E. Ledbetter  
Registration No. 28,732

Date: October 26, 2007  
JEL/DWW/att

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